

Kentucky Department of Education
Science Adoption 2008-2014

Provided by the Publisher	ISBN - 0022870679		Publisher - Macmillan/McGraw-Hill		Provided by the Publisher
	Kentucky Student Edition				
	Type - P1	Author - Hackett, and others			
	Copyright - 2009	Edition - First	Readability -	Modified Dale-Chall 2.7	
	Course - Science		Grade(s) -	3	
	Teacher Edition ISBN if applicable			0022871519	

Overall Recommendation:

☒ **Recommended as Basal**

Overall Strengths, Weaknesses, Comments:

*We found this basal to be most comprehensive in its coverage of the seven Big Ideas.
 *Organization and support provided within the teacher edition allows new teachers as well as veteran teachers to be successful teaching these concepts.
 *Inquiry is a strong emphasis of the text, and is embedded throughout.
 *A variety of free-with-purchase materials are available. Schools will need to choose carefully to make sure they receive some of the important supports with this program.
 *The "Kentucky" component of this basal allows students to make connections to their state's natural resource areas.

CRITERIA
This basal resource ...

A. Encompasses KY Content Standards & Grade Level Expectations

☒ **Strong Evidence**
☐ **Moderate Evidence**
☐ **Little or No Evidence**

☐ Text is designed to be used in an elective course outside the Program of Studies

1) Includes the 7 Big Ideas of science to the following extent:

- | | | | | |
|---|--|-----------------------------------|---------------------------------|------------------------------|
| a) Structure and Transformation of Matter | <input checked="" type="checkbox"/> Strong | <input type="checkbox"/> Moderate | <input type="checkbox"/> Little | <input type="checkbox"/> N/A |
| b) Motion and Forces | <input checked="" type="checkbox"/> Strong | <input type="checkbox"/> Moderate | <input type="checkbox"/> Little | <input type="checkbox"/> N/A |
| c) The Earth and the Universe | <input checked="" type="checkbox"/> Strong | <input type="checkbox"/> Moderate | <input type="checkbox"/> Little | <input type="checkbox"/> N/A |
| d) Unity and Diversity | <input checked="" type="checkbox"/> Strong | <input type="checkbox"/> Moderate | <input type="checkbox"/> Little | <input type="checkbox"/> N/A |
| e) Biological Change | <input checked="" type="checkbox"/> Strong | <input type="checkbox"/> Moderate | <input type="checkbox"/> Little | <input type="checkbox"/> N/A |
| f) Energy Transformation | <input checked="" type="checkbox"/> Strong | <input type="checkbox"/> Moderate | <input type="checkbox"/> Little | <input type="checkbox"/> N/A |
| g) Interdependence | <input checked="" type="checkbox"/> Strong | <input type="checkbox"/> Moderate | <input type="checkbox"/> Little | <input type="checkbox"/> N/A |

2) Addresses content-specific enduring

☒ Strong ☐ Moderate ☐ Little ☐ N/A

understandings from the related Program of Studies standards.

3) Addresses content-specific skills and concepts from the related Program of Studies standards. ☒ Strong ☐ Moderate ☐ Little ☐ N/A

4) Content addressed is current, relevant and non-trivial ☒ Strong ☐ Moderate ☐ Little ☐ N/A

5) Provides opportunities for critical thinking/reasoning ☒ Strong ☐ Moderate ☐ Little ☐ N/A

6) Strengths, Weaknesses, Comments:

- Specific strengths-which areas/concepts are covered exceptionally well?
- Specific weaknesses-which areas/concepts would likely require supplementing?

*Big Idea 1 covers structure and transformation of matter very thoroughly.
*Some congruent topics are included, which could be used for enrichment purposes or omitted (i.e. chemical changes, chemical elements, planets and moon phases).
*Quick checks throughout the each chapter provide opportunities for critical thinking and reasoning.
*Students have numerous opportunities to develop scientific skills. Each chapter begins with an inquiry-based explore activity. Science skills such as using variables, choosing how they design experiments, and making inferences are offered throughout the text.
*Kentucky's seven big ideas are dealt with thoroughly and comprehensively.

B. Functionality & Suitability

☒ Strong Evidence
☐ Moderate Evidence
☐ Little or No Evidence

1) Suitability ☒ Strong ☐ Moderate ☐ Little ☐ N/A

- Should be suitable for use with a diverse population and is free of bias regarding race, age, ethnicity, gender, religion, social and/or geographic environment; is free of stereotyping or bias of any kind.

2) Content quality ☒ Strong ☐ Moderate ☐ Little ☐ N/A

- Free from factual errors
- Content is presented conceptually when possible—more than a mere collection of facts
- Content included accurately represents the knowledge base of the discipline
- Theories/scientific models contained represent a broad consensus of the scientific community

3) Connections to Literacy ☒ Strong ☐ Moderate ☐ Little
Note: may apply to either student or teacher editions

- Employs a variety of reading levels and is grade/level appropriate
- Contains pre, during, post reading activities
- Provides opportunities for summarizing, reviewing, and reinforcing vocabulary skills and concepts

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at multiple levels of difficulty for a variety of learning styles.

- Student text provides opportunity to integrate reading and writing
- Uses vocabulary that is age and content appropriate
- Focuses on critical vocabulary vs. extensive lists
- Identifies key vocabulary through definitions in both text and glossary
- Engaging text- does the text facilitate learning?
- Does understanding the text require having performed the imbedded activities?

4) Connections to Technology

☒ Strong ☐ Moderate ☐ Little

- Integrates technology and reflects the impact of technological advances
- Uses technology in the collection and/or manipulation of authentic data

5) Support for Diverse Learners

☒ Strong ☐ Moderate ☐ Little

- Provides support for ESL students
 - Provides support for differentiation of instruction in diverse classrooms
- Note: may apply only to teacher edition*

6) Strengths, Weaknesses, Comments:

- Reviewers may provide page numbers to point out specific strong examples for individual evaluation standards.

*Connections to literacy are strong. Leveled readers are available as gratis materials. Throughout the text, key vocabulary is presented at the beginning of the chapter with a picture and definition.

*Writing connections are strong, with opportunities for research, persuasive writing, and other genres of writing.

* Some topics are introduced through poems.

* Reading skills, such as fact/opinion are embedded throughout the student and teacher text.

*Differentiating instruction suggestions are provided and scaffolded for various levels of understanding.

*Wonderful online connections available with the eJournal and eGlossary (also in Spanish). Animated Science in Motion are referenced but we had difficulty accessing these. CD roms are available in the gratis materials. A test generator and progress reporter are referenced in the teacher's guide.

C. Supports Inquiry and Skill Development

☒ **Strong Evidence**
☐ **Moderate Evidence**
☐ **Little or No Evidence**

1) Promotes Inquiry, research and Application of Learning

☒ Strong ☐ Moderate ☐ Little

- Provides opportunities for inquiry and research that includes activities such as self-selecting topics, formulating authentic questions, gathering information, researching resources, observing, interviewing, and evaluating information, analyzing and synthesizing data and communicating findings and conclusions.
- Requires students to use higher-level cognitive skills (analysis, synthesis, evaluation, etc.)
- Provides activities and projects for students to deepen their knowledge and cultivate and

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strengthen problem-solving and decision-making skills.

- Provides opportunities for application of learned concepts.
- Uses a variety of relevant charts, graphs, diagrams, time lines, and other illustrations to invite and motivate students to engage in discussion, problem solving, and other high-order thinking skills.
- Emphasizes conceptual understandings that invite students to predict, conclude, evaluate, develop and extend ideas to support reasoning.

Note: may apply to either teacher or student edition

2) Skill Development

☒ Strong ☐ Moderate ☐ Little

- Provides opportunities to make sense of data
- Provides opportunities for critical thinking and reasoning (analyze arguments, distinguish fact/opinion, recognize bias)
- Provides opportunities to examine a range of types of evidence
- Contains embedded activities (or extensions) that emphasize use of technology for problem solving

Note: may apply to either teacher or student edition

3) Strengths, Weaknesses, Comments:

*Critical thinking opportunities are offered in conjunction with Quick Checks throughout the chapters.

*Each lesson review contains a visual summary and suggestions for students on how to make study guides.

* Explore and Quick Lab activities reinforce science process skills.

D. Supports Best Practices of Teaching and Learning

☒ Strong Evidence
☐ Moderate Evidence
☐ Little or No Evidence

1) Engages Students

☒ Strong ☐ Moderate ☐ Little

- Includes content geared to the needs, interests, and abilities of students
- Engages and motivates students using components such as real-life situations, simulations, experiments, and data gathering.
- Includes information and activities that assist students in seeing relevance of concepts (where appropriate) to their own lives and experiences
- Provides a variety of strategies, activities, and materials to enhance student learning at the appropriate learning levels
- Activities are truly congruent to the concepts addressed, not merely correlated

Note: may apply to either teacher or student edition

2) Uses Assessment to Inform Instruction

☒ Strong ☐ Moderate ☐ Little

- Includes multiple means of assessment as an integral part of instruction
- Provides evaluation measures in the teacher edition that supports differentiated learning activities
- Embedded assessments reflect a variety of Depth of Knowledge levels

Note: may apply to either teacher or student edition

3) Strengths, Weaknesses, Comments:

- Reviewers may provide page numbers to point out specific strong examples for individual evaluation standards

Entry, formative, and summative assessments are all provided. When using the formative assessments, suggestions for intervention are given. Activities and experiments that develop big ideas are authentic and engaging. Numerous opportunities for data collection, organization, and analysis are included.

E. Has an Organization/ Format that Supports Learning and Teaching

☒ Strong Evidence
☐ Moderate Evidence
☐ Little or No Evidence

1) Organizational Quality

☒ Strong ☐ Moderate ☐ Little

- Print and/or electronic materials present minimal barriers to learners
- Presents chapters/lessons in an organized and logical sequence
- Provides clearly stated objectives for each lesson.
- Uses text features (e.g., titles, headings, subheadings, review questions, goals, objectives, space, print, type size, color) to enhance readability.
- Makes use of various forms of media (e.g., CD's, recordings, videos, cassette tapes, computer software, web-based components) as either student or teacher resources
- Includes clear, accurate, appropriate and clearly explained illustrations and/or graphics that reinforce content standards.
- Incorporates a glossary, footnotes, recordings, pictures, and/or tests that aid pupils and teachers in using the book effectively
- Uses grade-appropriate type size

Included media are durable, easy to use and have technical merit

- Construction appears to be durable and able to withstand normal use

2) Essential Components (beyond student and teacher text)

☐ Strong ☒ Moderate ☐ Little

- Items identified as essential components support the learning goals and concept coverage of the basal

3) Strengths, Weaknesses, Comments:

- Reviewers may provide page numbers to point out specific strong examples for individual evaluation standards.

*Excellent organization of available resources. Planning pages offer fast track suggestions if time is limited. Integration of cross curricular resources is at your fingertips. Kentucky Standards are listed at the beginning of each chapter. Science background for the teacher is included when applicable.

F. Has available Ancillary/ Gratis Materials

Note: The decision whether to recommend or not recommend this resource as a basal should not be influenced by Section F

☒ Strong Evidence
☐ Moderate Evidence
☐ Little or No Evidence

1) Ancillary/Gratis Materials

- Coordinates teacher resources easily with student material (e.g., accompaniments included, student pages shown, instructional technology indicated).
- Are well-organized and easy to use
- Provide substantive learning opportunities and are congruent with student learning goals
- Provide opportunities for high-level thinking, assessment, and/or problem solving

2) Strengths, Weaknesses, Comments:

- Reviewers may provide page numbers to point out specific strong examples for individual evaluation standards.

*A wealth of materials are available.

*Some manipulative materials are available in an explore kit (gratis materials) and others are in the tool chest kits (ancillary). Be aware that some experiments in the book may only have a demonstration kit in the explore kit. For example, there is only one toy car for the force and motion lab.